

# Lansdowne Radiation

**EPA Region 3**

Pennsylvania

Delaware County

Borough of Lansdowne

**EPA ID#** PAD980830921

**7th** Congressional District

**Last Update:**

August 2002

**Other Names:** None

## Current Site Status

The U.S. Environmental Protection Agency completed the cleanup of the Lansdowne Radiation Site in October 1989, and the site was deleted from the National Priorities List of the nation's most hazardous waste sites on September 10, 1991.

## Site Description

From 1924 to 1944, a University of Pennsylvania physics professor processed enriched radium ore in the basement of his home on Stratford Avenue in Lansdowne, Pennsylvania. That processing resulted in the radium contamination of the three-story duplex house in which he lived. It also resulted in the contamination of two garages on the property, two garages on neighboring properties, approximately 243 feet of municipal sewer line, sidewalks, soils to a depth of 11 feet on eight properties, and the street itself. In 1964, the Pennsylvania Department of Health performed a partial cleanup of the professor's house. In 1983, the Pennsylvania Department of

Environmental Resources advised EPA of the house.

### **Site Responsibility**


Cleanup of this site was the responsibility of the federal government.

### **NPL Listing History**

Our country's most serious, uncontrolled, or abandoned hazardous waste sites can be cleaned using federal money. To be eligible for federal cleanup money, a site must be put on the National Priorities List . This site was proposed to the list on April 10, 1985 and formally added to the list on September 16, 1985. The site was deleted from the NPL on September 10, 1991.

## **Threats and Contaminants**

Radiation levels in the duplex exceeded federal guidelines. Radioactive contamination had migrated to the sewer line from the duplex. Specific contaminants detected in soil surrounding the duplex included radium, radon gas, and radon decay products. Radioactive contamination had migrated to soil at the edge of the avenue where the duplex is located. Threats to human health included direct contact with radioactive materials. Air migration of contaminants also was of concern.

Contaminant descriptions and associated risk factors are available on the Agency for Toxic Substance and Disease Registry, an arm of the CDC, web site at <http://www.atsdr.cdc.gov/hazdat.html> 

## **Cleanup Progress**

In 1984, EPA inspected the property and found radiation levels exceeding accepted standards. Further analysis showed that the radium had penetrated virtually all surfaces in the building including wooden structural supports, furniture, and flooring. EPA began a removal action which temporarily relocated the elderly female resident of the house. During that removal action, additional testing for radium contamination was conducted, the windows were sealed, a fire suppression system was installed, and fire and intruder alarms were also installed.

The site was included on the NPL in August 1995, and a Record of Decision (ROD) was issued in September 1986 which called for the complete dismantlement of the house, cleanup of contaminated soil, and replacement of the contaminated sewer line. The U.S. Army Corps of Engineers completed a remedial design for the dismantlement, and the remedial action began in August 1988. A total of eight private properties were involved in the cleanup. The contaminated portion of the municipal sewer line was replaced, contaminated sidewalks were remediated, and the remediated portion of Stratford Avenue was repaved. The cleanup of the site resulted in the removal of 1,430 tons of contaminated building rubble, and 4,109 tons of contaminated soils. These materials were transported to Utah for disposal in a licensed radioactive waste disposal facility. The properties were backfilled with clean soil and seeded with grass. The remedial action was completed in October 1989. The site was deleted from the NPL on September 10, 1991.

## Contacts

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Detailed public files (Administrative Record) on EPA's actions and decisions for this site can be examined at the following locations:

Lansdowne Public Library

55 South Lansdowne Avenue  
Lansdowne, PA 19050

EPA Public Reading Room  
1650 Arch Street  
Philadelphia, PA 19103-2029  
215-814-3157

Please call to schedule an appointment.